UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,330	05/30/2001	Sang-Woo Lee	2069-3-03	1187

35884 7590 09/17/2004	EXAMINER
LEE, HONG, DEGERMAN, KANG & SCHMADEKA, P.C.	BAYAT, BRADLEY B

ART UNIT	PAPER NUMBER
3621	

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DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/871,330	LEE, SANG-WOO
	Examiner	Art Unit	
	Bradley Bayat	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2001*.
2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-22* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All   b)☐ Some * c)☐ None of:
1.☒ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claims 1-22 are presented for examination on the merits. Applicant's preliminary

amendment to correct the length of the abstract dated January 23, 2002 has been entered.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Verkama,

U.S. Patent Application Publication 2001/0005840 A1.

As per the following claims, Verkama discloses:

1. A credit card transaction authentication system using a mobile terminal for performing a work

of credit card authentication for a relay system of a VAN company connected between an

approval system of a credit card company, which can approve a credit card settlement of the

prices, and a transaction approval terminal, which requests credit card transaction approval by

means of contactless radio-frequency identification of said mobile terminal containing a

transponder therein, comprising [¶7-12]:

a process server connected with said relay system of said VAN company through a

network, for operating a site, which provides an environment capable of performing registration

and modification of credit card information for a credit card settlement function by means of said

contactless radio-frequency identification of said mobile terminal, and for controlling said credit

card transaction authentication system to perform said work of credit card authentication for said

relay system of said VAN company [¶22-23 and associated figures];

an authentication engine which in accordance with control of said process server, upon

receipt of credit card authentication request data on said mobile terminal from said relay system

of said VAN company that has received price settlement request data generated from said

transaction approval terminal by means of said contactless radio-frequency identification of said

mobile terminal, extracts credit card connection information on said mobile terminal, based on

said received authentication request data and transmits authentication data to said relay system of

said VAN company [figure 2 and associated text]; and

a database server for storing information on a user of said mobile terminal, said credit

card connection information resulted from said contactless radio-frequency identification of said

mobile terminal, and information on a peculiar code of said transponder contained in said mobile

terminal, according to said control of said process server [figure 3 and associated text].

2. The credit card transaction authentication system using the mobile terminal as claimed in

claim 1, wherein said process server includes: a communication portion which allows said

process server to be connected with said relay system of said VAN company through said

network, and receives and transmits data on registration, change, and authentication of a credit

card so that said credit card settlement can be made by means of said contactless radio-frequency

identification of said mobile terminal; a mobile or web site for providing an environment in

which member registration of said user of said mobile terminal, and registration, change and

environment configuration of said credit card information for said mobile terminal are provided;

and a control portion for controlling operations of said credit card transaction authentication

system and for controlling a series of functions for said relay system of said VAN company to

perform said work of credit card authentication so that said credit card settlement can be made by

means of said contactless radio-frequency identification of said mobile terminal [¶22-26].

3. The credit card transaction authentication system using the mobile terminal as claimed in

claim 1, wherein said authentication engine includes: a registration portion which receives user's

information including personal data on said user of said mobile terminal, through said network,

receives said peculiar code and an encryption key of said transponder contained in said mobile

terminal, and said credit card connection information including a credit card number and the

term of validity of said credit card owned by said user of said mobile terminal, and then registers

them at said database server; an extraction portion which receives said credit card authentication

request data on said mobile terminal from said relay system of said VAN company which has

received said price settlement request data generated from said transaction approval terminal by

means of said contactless radio-frequency identification of said mobile terminal and then extracts

said credit card connection information for said mobile terminal based on said received

authentication request data; and an authentication portion which transmits said authentication

data including said credit card number to said relay system of said VAN company based on said

credit card connection information extracted by said extraction portion [¶28-34].

4. The credit card transaction authentication system using the mobile terminal as claimed in

claim 1, wherein said database server includes: a member database which stores member's

information including an ID, a password, and basic personal data received when said user of said

mobile terminal requests a subscription to a member, and said credit card connection information

including said credit card number and said term of validity of said credit card owned by said user

of said mobile terminal; a security database which stores information on said peculiar code and

said encryption key of said transponder contained in said mobile terminal; and a management

database which stores history information on the transmission of said authentication data from

said relay system of said VAN company based on said credit card authentication request data,

and user's environment configuration information for said credit card authentication request from

said mobile terminal [¶30-33].

5. The credit card transaction authentication system using the mobile terminal as claimed in

claim 1, wherein a POS server is further provided between said transaction approval terminal and

said relay system of said VAN company, and said credit card transaction authentication system

performs said work of credit card authentication for said POS server [figures 4-7 and associated

text].

6. A credit card transaction authentication system using a mobile terminal, comprising: a process

server connected, through a network, with an approval system of a credit card company, which

can approve a credit card settlement of the prices, and with a transaction approval terminal,

which requests credit card transaction approval by means of contactless radio-frequency

identification of a mobile terminal containing a transponder therein, for performing control to

provide a work of credit card authentication in response to said credit card settlement of the

prices by said contactless radio-frequency identification carried out between said mobile terminal

and said transaction approval terminal, an authentication engine which in accordance with said

control of said process server, upon receipt of price settlement request data generated from said

transaction approval terminal by means of said contactless radio-frequency identification of said

mobile terminal, extracts credit card connection information set in said mobile terminal, based on

said received price settlement request data, transmits transaction approval request data to an

approval system of a credit card company corresponding to said extracted credit card connection

information, and, upon return of a transaction approval data for said transaction approval request

data, transmits transaction approval result data to said transaction approval terminal; and a

database server for storing information on a user of said mobile terminal, member store's

information for said transaction approval terminal, said credit card connection information

resulted from said contactless radio-frequency identification of said mobile terminal, information

on a peculiar code of said transponder contained in said mobile terminal, and the like, according

to said control of said process server [system of the above method in claim 1 and rejected as

above].

7. The credit card transaction authentication system using the mobile terminal as claimed in claim 6, wherein said process server includes: a communication portion which allows said credit card transaction authentication system to be connected with said transaction approval terminal and said approval system of said credit card company through said network, and receives and transmits data on registration, change, authentication, approval request of a credit card so that said credit card settlement can be made by means of said contactless radio-frequency identification of said mobile terminal; a mobile or web site for providing an environment in which member registration of said user of said mobile terminal, and registration, change and environment configuration of credit card information for said mobile terminal are provided; and a control portion for controlling operations of said credit card transaction authentication system and for controlling said work of credit card authentication and a series of functions for obtaining said transaction approval so that said credit card settlement can be made by means of said contactless radio-frequency identification of said mobile terminal [¶22-26].

8. The credit card transaction authentication system using the mobile terminal as claimed in claim 6, wherein said authentication engine includes: a registration portion which receives user's information including personal data on said user of said mobile terminal, through said network, also receives said peculiar code and an encryption key of said transponder contained in said mobile terminal, and said credit card connection information including a credit card number and the term of validity of said credit card owned by said user of said mobile terminal, and then registers them at said database server; an extraction portion which receives said price settlement data generated from said transaction approval terminal by means of said contactless radio-

frequency identification of said mobile terminal and then extracts said credit card connection

information for said mobile terminal based on said received price settlement data; and an

authentication portion which transmits said transaction approval request data to said approval

system of said pertinent credit card company based on said credit card connection information

extracted by said extraction portion, and, upon return of said transaction approval data for said

transaction approval request data, transmits said transaction approval result data to said

transaction approval terminal [¶28-34].

9. The credit card transaction authentication system using the mobile terminal as claimed in

claim 6, wherein said database server includes: a member database which stores member's

information including an ID, a password, and basic personal data received when said user of said

mobile terminal requests a subscription to a member, said credit card connection information

including said credit card number and said term of validity of said credit card owned by said user

of said mobile terminal, and member store's information for said transaction approval terminal; a

security database which stores information on said peculiar code, said encryption key of said

transponder contained in said mobile terminal, and a peculiar code of said transaction approval

terminal; and a management database which stores history information on said credit card

authentication or said transaction approval data related to said price settlement request data from

said transaction approval terminal, and user's environment configuration information on said

credit card authentication for said mobile terminal [¶23].

10. A credit card transaction authentication method using a mobile terminal, performed by a

credit card transaction authentication system toward a relay system of a VAN company

connected between a transaction approval terminal, which requests a credit card settlement for

the prices by means of contactless radio-frequency identification of said mobile terminal

containing a transponder therein, and a credit card company, which can approve said credit card

settlement of the prices, comprising:

a registration step of receiving and registering credit card connection information

including a credit card number and the term of validity of a credit card in correspondence with a

peculiar code of said transponder contained in said mobile terminal [¶23];

a receipt step of receiving credit card authentication request data including said peculiar

code of said transponder contained in said mobile terminal from said relay system of said VAN

company which has received data on said credit card settlement for the prices generated by

means of said contactless radio-frequency identification performed between said mobile terminal

and said transaction approval terminal [figure 4 and associated text];

an extraction step of recognizing said peculiar code of said transponder in said received

authentication request data, and extracting said credit card connection information such as said

credit card number and said term of validity corresponding to said recognized peculiar code of

said transponder [¶9-11; figure 5 and associated text]; and

a transmission step of, upon extraction of said credit card connection information,

generating authentication data such as said credit card number and said term of validity

corresponding to said credit card connection information, and transmitting said generated

authentication data to said relay system of said VAN company [¶22-26].

11. A credit card transaction authentication method using a mobile terminal, performed by a

credit card transaction authentication system between a transaction approval terminal, which

requests a credit card settlement for the prices by means of contactless radio-frequency

identification of said mobile terminal containing a transponder therein, and an approval system

of a credit card company, which can approve said credit card settlement of the prices, to make

said credit card settlement of the prices by means of said contactless radio-frequency

identification between said mobile terminal and said transaction approval terminal, comprising: a

registration step of receiving and registering credit card connection information including a

credit card number and the term of validity of a credit card in correspondence with a peculiar

code of said transponder contained in said mobile terminal; a receipt step of receiving price

settlement request data including said peculiar code of said transponder contained in said mobile

terminal generated from said transaction approval terminal by means of said contactless radio-

frequency identification of said mobile terminal; an extraction step of recognizing said peculiar

code of said transponder in said received price settlement request data, and extracting said credit

card connection information such as said credit card number and said term of validity

corresponding to said recognized peculiar code of said transponder; a transaction approval

request step of, upon extraction of said credit card connection information, generating transaction

approval request data including said credit card number, and transmitting said generated

transaction approval request data to said approval system of said credit card company

corresponding to said credit card connection information; and a credit card

authentication/approval step of, upon return of approval data for said transaction approval

request data from said approval system of said credit card company, transmitting transaction

approval result data to said transaction approval terminal (¶22-26; 10, 29].

12. The credit card transaction authentication method using the mobile terminal as claimed in claim 10, wherein said transponder contained in said mobile terminal is further provided with an encryption key, said registration step further includes a step of registering said encryption key of said transponder in correspondence with said peculiar code of said transponder contained in said mobile terminal, and said extraction step further includes a step of extracting said encryption key of said transponder corresponding to said recognized peculiar code of said transponder [figure 9 and associated text and claim 2].

13. The credit card transaction authentication method using the mobile terminal as claimed in claim 11, wherein said transponder contained in said mobile terminal is further provided with an encryption key, said registration step further includes a step of registering said encryption key of said transponder in correspondence with said peculiar code of said transponder contained in said mobile terminal, and said extraction step further includes a step of extracting said encryption key of said transponder corresponding to said recognized peculiar code of said transponder [see claim2 and background of the invention].

14. The credit card transaction authentication method using the mobile terminal as claimed in claim 12, wherein said registration step further includes:

a subscription step of receiving basic personal data, information on said mobile terminal containing said transponder, and said credit card connection information such as said credit card

number and said term of validity of said credit card of a user inputted when said user of said

mobile terminal subscribes to a member [¶40];

a confirmation step of confirming, by said approval system of said credit card company,

whether said user is a true owner of said credit card and said credit card is available, based on

said personal data such as a resident registration number, and said credit card connection

information such as said credit card no number [figure 1, 6-9 and associated text]; and

a registration step of, when it has been determined by said approval system of said credit

card company that said user is the true owner of said credit card and said credit card is available,

registering said credit card connection information such as said credit card number and said term

of validity of the credit card, and said encryption key of said transponder in correspondence with

said peculiar code of said transponder [¶40-41; figure 1].

15. The credit card transaction authentication method using the mobile terminal as claimed in

claim 13, wherein said registration step further includes: a subscription step of receiving basic

personal data, information on said mobile terminal containing said transponder, and said credit

card connection information such as said credit card number and said term of validity of said

credit card of a user inputted when said user of said mobile terminal subscribes to a member; a

confirmation step of confirming, by said approval system of said credit card company, whether

said user is a true owner of said credit card and said credit card is available, based on said

personal data such as a resident registration number, and said credit card connection information

such as said credit card number; and a registration step of, when it has been determined by said

approval system of said credit card company that said user is the true owner of said credit card

and said credit card is available, registering said credit card connection information such as said

credit card number and said term of validity of the credit card, and said encryption key of said

transponder in correspondence with said peculiar code of said transponder [figures 1-3 and

associated text].

16. The credit card transaction authentication method using the mobile terminal as claimed in

claim 12, wherein said receipt step further includes: a transaction step of generating a response

code by combining said encryption key of said transponder contained in said mobile terminal and

a rolling code produced by said transaction approval terminal; a credit card price settlement

request step of transmitting said price settlement request data, which consists of authentication

request data including said peculiar code, said encryption key, said rolling code and said

response code and of transaction-related data including the prices for goods and member store

code, from said transaction approval terminal to said relay system of said VAN company; and a

step of receiving said authentication request data from said relay system of said VAN company

[¶36-38].

17. The credit card transaction authentication method using the mobile terminal as claimed in

claim 13, wherein said receipt step further includes: a transaction step of generating a response

code by combining said encryption key of said transponder contained in said mobile terminal and

a rolling code produced by said transaction approval terminal; and a step of receiving said price

settlement request data, which consists of authentication request data including said peculiar

code, said encryption key, said rolling code, and said response code and of transaction-related

data including the prices for goods and member store code, from said transaction approval

terminal [figures 3-5 and associated text].

18. The credit card transaction authentication method using the mobile terminal as claimed in

claim 12, wherein said extraction step further includes: a first step of extracting said stored

encryption key from said database server by using said received peculiar code and comparing

said extracted encryption key with said received encryption key; a second step of, when said

extracted encryption key conforms to said received encryption key, calculating a response code

by combining said stored encryption key and said received rolling code; and a third step of, when

said calculated response code conforms to said received response code, extracting said credit

card connection information including said credit card number and said term of validity

corresponding to said received peculiar code of said transponder [¶23-40].

19. The credit card transaction authentication method using the mobile terminal as claimed in

claim 13, wherein said extraction step further includes: a first step of extracting said stored

encryption key from said database server by using said received peculiar code and comparing

said extracted encryption key with said received encryption key; a second step of, when said

extracted encryption key conforms to said received encryption key, calculating a response code

by combining said stored encryption key and said received rolling code; and a third step of, when

said calculated response code conforms to said received response code, extracting said credit

card connection information including said credit card number and said term of validity

corresponding to said received peculiar code of said transponder [see claim 2].

20. The credit card transaction authentication method using the mobile terminal as claimed in claim 10, further comprising: a member authentication step of, when a user of said mobile terminal connects with a web or mobile site of said authentication system through a network, confirming whether said user is a member; a member's initial-screen displaying step of, when it has been determined from said member authentication step that said user is a member, providing environment configuration for setting whether said credit card settlement by said mobile terminal is used, registration, change and deletion of a credit card for settlement, and a locking function for a work of credit card authentication; and an update step of changing and updating said environment configuration for setting whether said credit card selected by said user is continuously used, registration, change, and deletion of said credit card for settlement, and said locking function for said work of credit card authentication [figures 6-9 and associated text].

21. The credit card transaction authentication method using the mobile terminal as claimed in claim 11, further comprising: a member authentication step of, when a user of said mobile terminal connects with a web or mobile site of said authentication system through a network, confirming whether said user is a member; a member's initial-screen displaying step of, when it has been determined from said member authentication step that said user is a member, providing environment configuration for setting whether said credit card settlement by said mobile terminal is used, registration, change and deletion of a credit card for settlement, and a locking function for a work of credit card authentication; and an update step of changing and updating said environment configuration for setting whether said credit card selected by said user is

continuously used, registration, change, and deletion of said credit card for settlement, and said

locking function for said work of credit card authentication [¶22-23].

22. The credit card transaction authentication method using the mobile terminal as claimed in

claim 10, wherein a POS server is further provided between said transaction approval terminal

and said relay system of said VAN company, and said credit card transaction authentication

system performs a work of credit card authentication for said POS server [figures 2-5 and

associated text].

Examiner has pointed out particular references contained in the prior arts of record in

the body of this action for the convenience of the applicant. Although the specified citations

are representative of the teachings in the art and are applied to the specific limitations within

the individual claim, other passages and figures may apply as well. It is respectfully requested

from the applicant, in preparing the response, to consider fully the entire references as

potentially teaching all or part of the claimed invention, as well as the context of the passage

as taught by the prior arts or disclosed by the examiner.

Conclusion

1.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

- US Patent Application Publication 2002/0128982 A1 to Gefwert et al.
- US Patent No. 6,703,918 B1 to Kita.
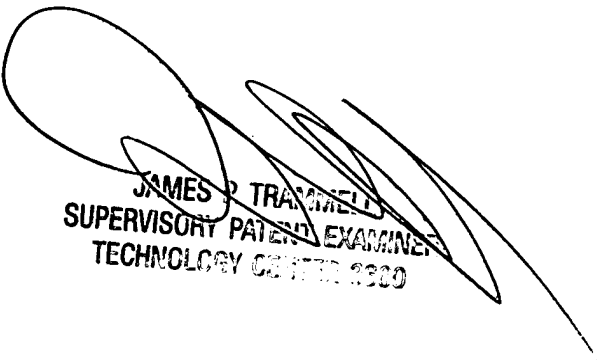- US Patent No. 6,496,808 B1 to Aiello et al.

- US Patent Application Publication 2002/0046189 A1 to Morita et al.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Bradley Bayat whose telephone number is 703-305-8548. The

examiner can normally be reached on Tuesday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Trammell can be reached on 703-305-9768. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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bbb

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